FIG. 1A

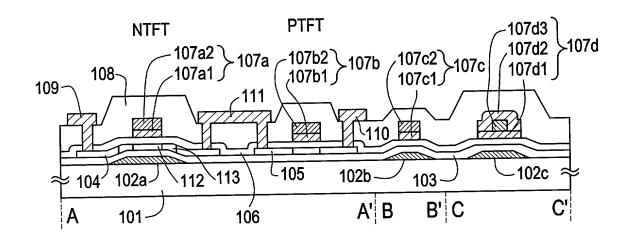


FIG. 1B

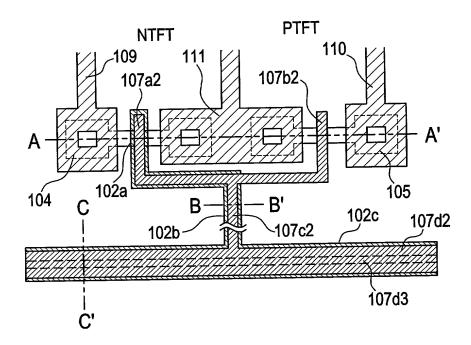


FIG. 2A

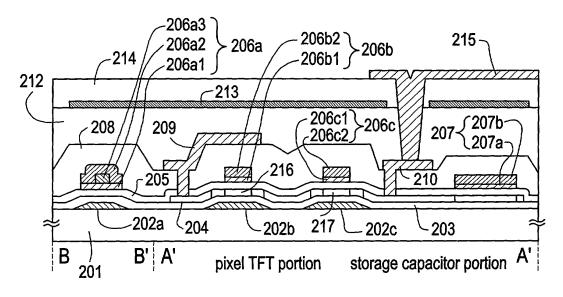


FIG. 2B

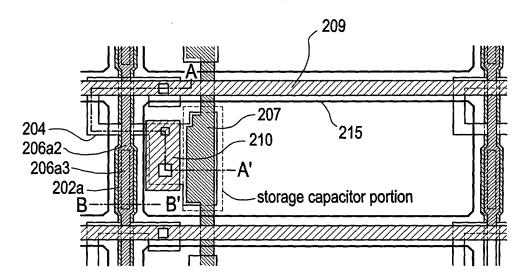


FIG. 3A

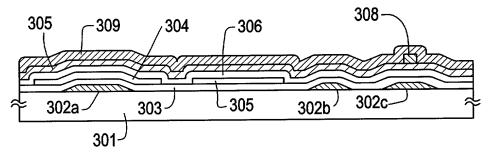


FIG. 3B

phosphorus doping step

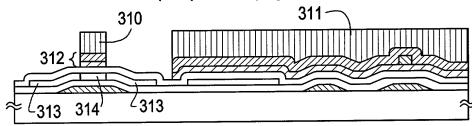


FIG. 3C 315-

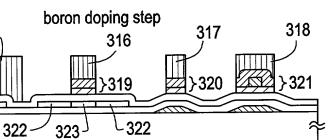


FIG. 3D

backside exposure phosphorus doping step 327 325

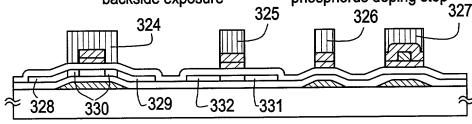
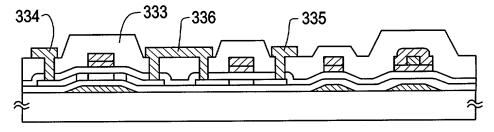
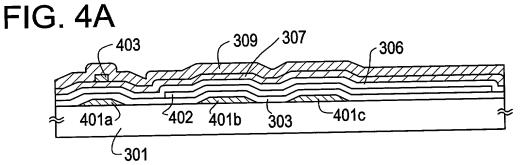
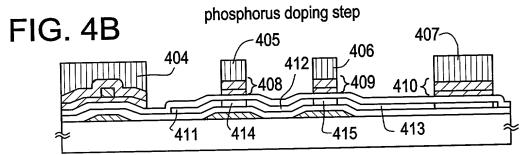
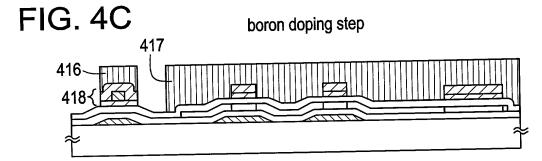


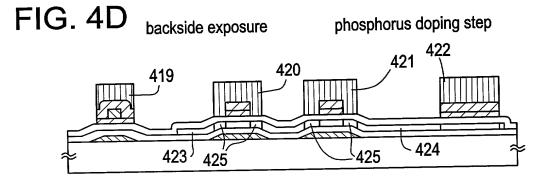
FIG. 3E

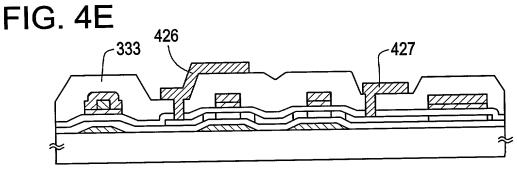












...

FIG. 5A

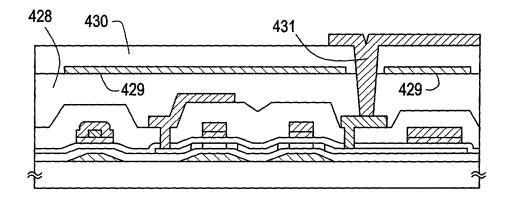
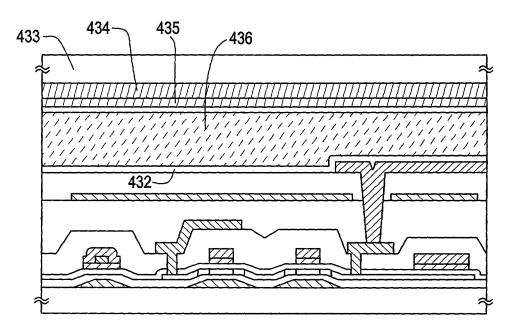


FIG. 5B



n n mateu

13 t H 1 t 1 H



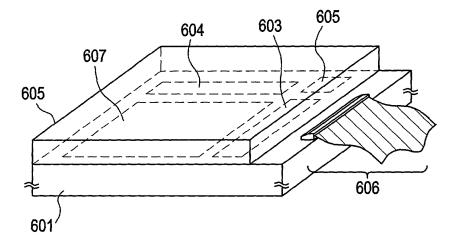
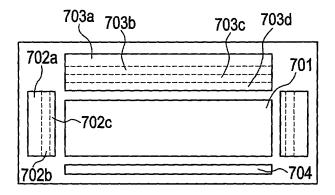


FIG. 7



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FIG. 8A

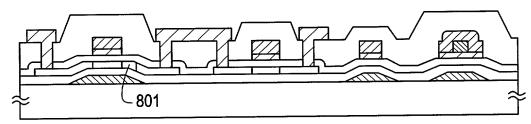


FIG. 8B

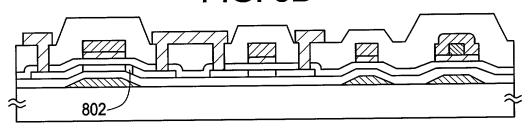


FIG. 8C

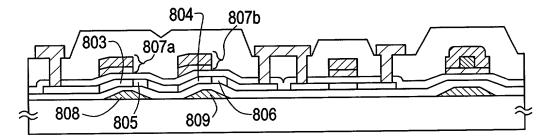


FIG. 8D

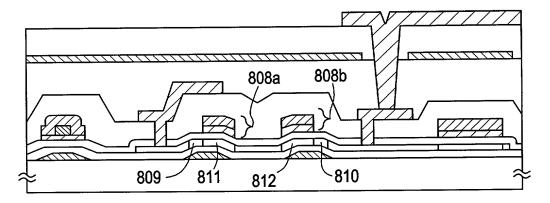
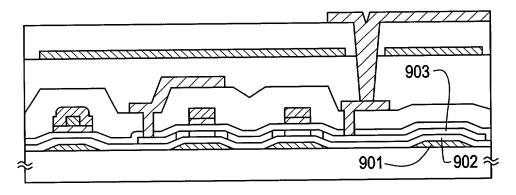


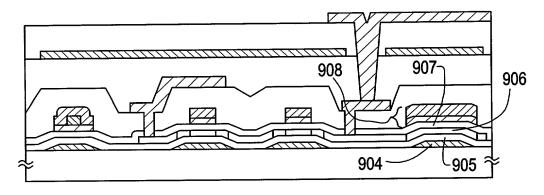
FIG. 9A



pixel TFT portion

storage capacitor portion

FIG. 9B



pixel TFT portion

storage capacitor portion

FIG. 10A

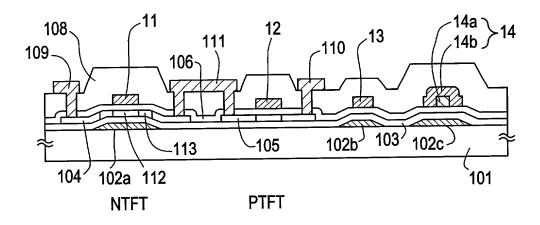
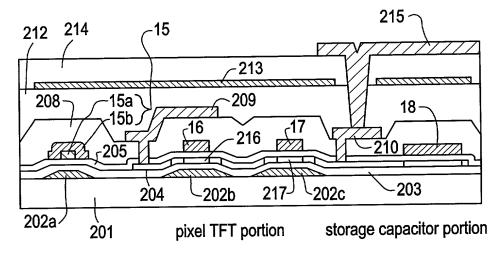


FIG. 10B



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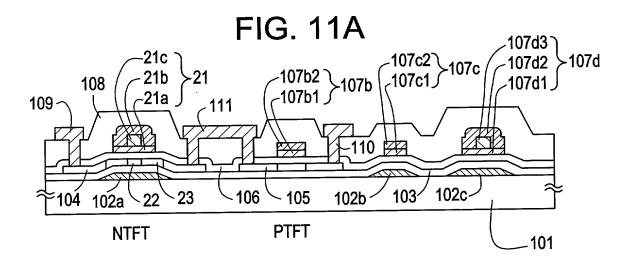
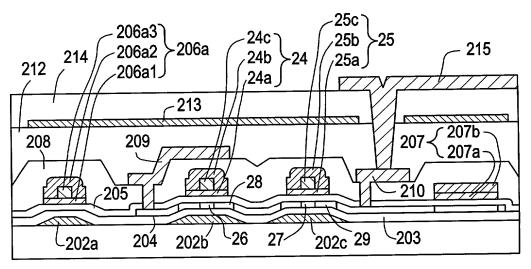


FIG. 11B



pixel TFT portion

storage capacitor portion

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FIG. 12A

gettering step by phosphorus

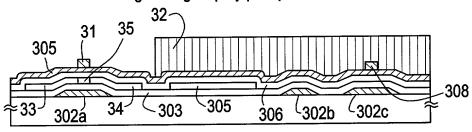


FIG. 12B

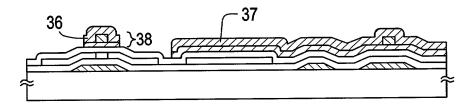


FIG. 12C

boron doping step

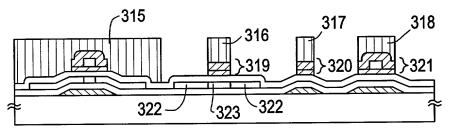


FIG. 12D

back side exposure step phosphorus doping step

324
325
326
327
41
40
332
331

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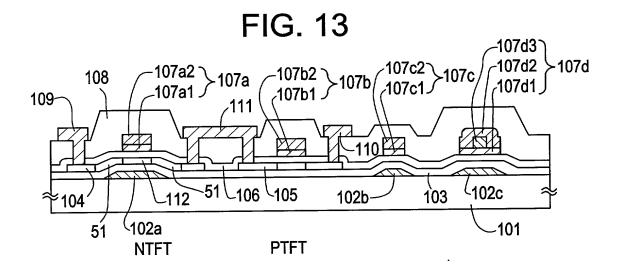


FIG. 14A

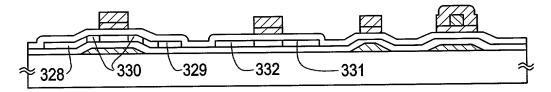
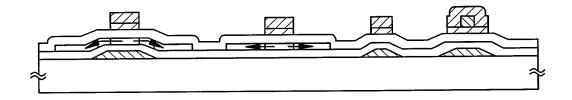


FIG. 14B



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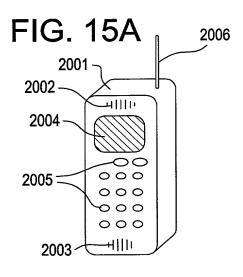


FIG. 15B

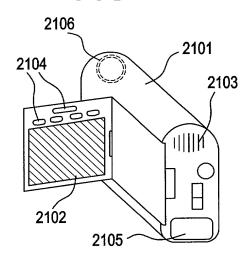


FIG. 15C

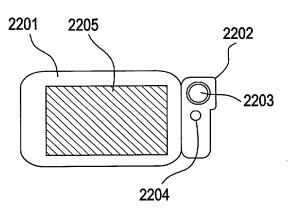


FIG. 15D

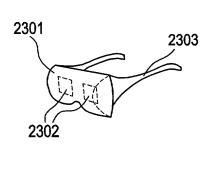


FIG. 15E

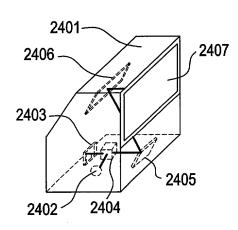


FIG. 15F

